IN THE CLAIMS

Please amend the following claims which are pending in the present application:

1-7. (Cancelled)

8. (Currently Amended) A process for preparing a carbon nanotube

electrode, comprising consisting essentially of the steps of:

(1) preparing an electrode material by mixing carbon nanotubes with a

binder selected from the group consisting of sulfur having an-

average particle size of 1µm or less, metal nanoparticles having an

average particle size of 1µm or less and both of them, wherein the

binder has the effect of minimizing the internal resistance of the

electrode;

(2) preparing a pressed electrode material by first pressing the electrode

material under a pressure from 1 to 500 atm (about 1.033 to about

516.615 kgf/cm²); and

(3) subsequently pressing under a pressure from 1 to 500 atm_(about

1.033 to about 516.615 kgf/cm²), or heat-treating at a temperature in

the range of the melting point of the sulfur or metal nanoparticles

±200□ in inert gas atmosphere, or simultaneously pressing under the

said pressure and heat-treating at the said temperature in inert gas

Young Nam Kim, et al. Application No.: 10/783,265

Examiner: Karie Amber Oneill Art Unit: 1795

- 2 -

atmosphere the previously pressed electrode material that is placed

on a current collector so that the carbon nanotubes are bonded to

each other and simultaneously bonded to the current collector, by the

binder being bonded, deposited, or fused on the surfaces of the

carbon nanotubes;

wherein the binder has the effect of minimizing the internal resistance of

the electrode.

9. (Previously Presented) The process according to claim 8, wherein in step

(2), the electrode material is uniformly dispersed on a current collector and then

pressed, or simultaneously dispersed and pressed.

10-11. (Cancelled)

12. (Previously Presented) The process according to claim 8, wherein in step

(1), the mixing of carbon nanotubes with the binder is performed by a method

chosen from the group consisting of physical mixing, ultrasonic-mixing, solvent-

mixing, and uniformly dispersing the sulfur or metal nanoparticles on the

surfaces of the carbon nanotubes.

13. (Previously Presented) The process according to claim 12, wherein the

method of uniformly dispersing sulfur or metal nanoparticles on the surfaces of

- 3 -

carbon nanotubes is carried out by a method selected from the group consisting of catalytic impregnation followed by an optional oxidation or reduction, precipitation, chemical vapor deposition (CVD), electrodeposition, plasma spraying, and sputtering.

- 14. (Original) The process according to claim 8, wherein the primary pressing in step (2) provides the electrode material in the shape of a disk or thin film.
- 15. (Original) The process according to claim 8, wherein in step (3), the pressing and the heat-treatment are carried out simultaneously or consecutively.
- 16. (Original) The process according to claim 8, wherein in step (3), the heattreatment is carried out by a heating method selected from the group of thermal heating, chemical vapor deposition, plasma heating, RF (radio frequency) heating, and microwave heating.

17-19. (Cancelled)

20. (Previously Presented) A secondary battery comprising the carbon nanotube electrode prepared according to the process of claim 8.

21-22. (Cancelled)

23. (Currently Amended) A process for preparing a carbon nanotube

electrode, comprising consisting essentially of the steps of:

(1) preparing an electrode material by depositing a binder selected from the

group consisting of sulfur having an average particle size of 1µm or less,

metal nanoparticles having an average particle size of 1µm or less and

both of them on the carbon nanotubes, wherein the binder has the effect

of minimizing the internal resistance of the electrode;

(2) preparing a pressed electrode material by first pressing the electrode

material under a pressure from 1 to 500 atm (about 1.033 to about 516.615

kgf/cm²); and

(3) subsequently pressing under a pressure from 1 to 500 atm (about 1.033 to

about 516.615 kgf/cm²), or heat-treating at a temperature in the range of

the melting point of the sulfur or metal nanoparticles ±2000 in inert gas

atmosphere, or simultaneously pressing under the said pressure and heat-

treating at the said temperature in inert gas atmosphere the previously

pressed electrode material that is placed on a current collector so that the

carbon nanotubes are bonded to each other and simultaneously bonded to

the current collector, by the binder being bonded, deposited, or fused on

the surfaces of the carbon nanotubes;

wherein the binder has the effect of minimizing the internal resistance of the

<u>electrode.</u>

- 24. (Previously Presented) The process according to claim 23, wherein in step
- (2), the electrode material is uniformly dispersed on a current collector and then pressed, or simultaneously dispersed and pressed.
- 25. (Previously Presented) The process according to claim 23, wherein in step (1), the depositing of the binder on the carbon nanotubes is performed by a method chosen from the group consisting of physical mixing, ultrasonic-mixing, solvent-mixing, and uniformly dispersing the sulfur or metal nanoparticles on
- 26. (Previously Presented) The process according to claim 25, wherein the method of uniformly dispersing sulfur or metal nanoparticles on the surfaces of carbon nanotubes is carried out by a method selected from the group consisting of catalytic impregnation followed by an optional oxidation or reduction, precipitation, chemical vapor deposition (CVD), electrodeposition, plasma spraying, and sputtering.
- 27. (Previously Presented) The process according to claim 23, wherein the primary pressing in step (2) provides the electrode material in the shape of a disk or thin film.

Young Nam Kim, et al. Application No.: 10/783,265

the surfaces of the carbon nanotubes.

- 28. (Previously Presented) The process according to claim 23, wherein in step
- (3), the pressing and the heat-treatment are carried out simultaneously or consecutively.
- 29. (Previously Presented) The process according to claim 23, wherein in step (3), the heat-treatment is carried out by a heating method selected from the group of thermal heating, chemical vapor deposition, plasma heating, RF (radio
- 30. (Previously Presented) A secondary battery comprising the carbon nanotube electrode prepared according to the process of claim 23.

frequency) heating, and microwave heating.